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Autor: Greenway, John L.

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til Fods i Paris, som en Erobrer i en bombarderet Egn. Han afsøger alle Bydele, konstaterer, beskriver, besynger den Skade, som er voldt ved Ild- og Sprængstoffer.[25]

7. Til sidst fandt han i *Nietzsche* den Mand, som bragte ham til fuld Klarhed over sig selv. Fra nu af er hans Ideal ikke længere Martyren, men Cæsar, og som Brandes før havde vakt en Bevægelse af Altruisme, der satte sig dybe Spor i det offentlige Liv, skabte han nu en Skole af Egoister. Ved sin Proklamering af den «aristokratiske Radikalisme» og ved sin dermed omtrent jævnsides løbende Kamp mod «visse store, som fritænkeriske Digtere forklædte Lægprædikanter,» ved hele sin *Overmeneske-Moral* har Brandes i Virkeligheden indført *den mest vidtgaaende tyske Romantiks* Ideer i dansk Aandsliv. Efter at have kastet den utilitaristiske Mummedragt, afslørede den saakaldte Brandesianisme sig som Romantik – blot, at denne Romantik, ligesom ogsaa Heines og Ungtyskernes, var endnu mere radikal end den, som den fortrængte. Man kan sige, at i og med Brandes og Brandesianismen fuldbyrdes Romantikken i Danmark – drages de Konsekvenser, som Brandes selv i en af sine første Forelæsninger erklærede, at vi endnu ikke havde draget. «Vi iagttog Decorum, vi stillede os ikke paa Hovedet,» sagde han om de danske Romantikere fra Aarhundredets Begyndelse. Nu kom *han* – og havde Mod til at vende op og ned paa alt. Ærkeromantisk gik han i Gang med at *omvurdere Værdierne*. Thi hvad er Romantik andet end *Værdiforfalskning*. «Fair is foul, and foul is fair,» siger Heksene i «Macbeth». Dette blev da den brandesianske Nyromantiks Evangelium.[26]

8. Ogsaa vi har jo hørt alt det hviske og le, som hvisker og ler under Løvet i de lyse Nætter; vi har fornummet Magten af alt det, der drømmer tungt og stille i de ensomme Skove og de lønlige Bjærgkløfter. Vi har hørt Draugen raabe og set Huldrens hvide Arme og Elverpigernes Dans, naar Maanen i stille Foraarsaftener skinnede paa Birkestammerne . . .

   Men den Digtning, som ikke vil forfalske Livet, véd, at det kun er Spøgeri altsammen og lader sig ikke rive med i Elverdansen. *Vi vil være Mennesker, vi vil ikke være Trold!*

   Først med dette Ord kan Romantikken i Danmark, den naturalistiske, brandesianske Romantik endelig overvindes. Det vi vil, er Skønhed – men *Virkelighedens Skønhed*. Det vi vil, er Frihed, men *Frihed under Loven*. Thi, som Goethe har sagt, kun Loven giver Frihed: «Nur das Gesetz kann uns die Freiheit geben.»[27]

[25] CLAUSSEN (1918: 148f.).
[26] JØRGENSEN (1915: VI, 222).
[27] JØRGENSEN (1915: VI, 234f.).

JOHN L. GREENWAY, LEXINGTON/KENTUCKY

«Naturens hemmelige Urkraft»: Ørsted's «Theory of Light» and Oehlenschläger's *Aladdin*

That a preeminent scientist could play a leading role in the literary life of his generation may be difficult for us to imagine, but such was the case with Hans

Christian Ørsted (1777–1851). He became internationally famous in 1820 with his discovery of electromagnetism: that is, that an electric current can affect a magnetic needle. Historians of science have recognized the crucial importance of this discovery to our electronic technology,[1] but I would like to illustrate the importance of Ørsted's physics to the literary imagination of his time. Given the assumptions of the physics of Ørsted's day, the significance of relating magnetism to electricity, light and heat was immense, for the literary as well as for the scientific imagination. After sketching the contours of the assumptions regulating the research of Ørsted (and others in the early 1800s), we will sharply narrow the focus of our inquiry to see how Ørsted's theory of light allows us to see the imagery in what Brandes called «Udgangspunktet for nyere dansk Aandsliv» – Oehlenschläger's *Aladdin* (1805) – as a coherent background for the action.[2] Also, Ørsted's interpretation of his investigations gives us a perspective to view the play's Epilogue and, consequently, the play itself.

While Ørsted had his roots in the speculative world of Steffens and the *Naturphilosophen*, he eventually broke with them over their lack of experimental rigot, and insisted upon tethering conjecture to observation.[3] Without this link, Ørsted maintained, unity itself becomes a barren and empty thought leading to no true insight.[4]

Although the degree of influence of Ørsted and Steffens upon Oehlenschläger has been debated,[5] the two maintained a lifelong friendship. In his «Mindeskrift» for Steffens in 1846, Ørsted described the lifelong difference between them: while they shared a conviction of the «unity in nature,» Ørsted sought confirmation of this unity in experiment, while Steffens sought confirmation in philosophy.[6] While Ørsted did not reject mathematics, he preferred images to equations, thus making his theories more accessible to his literary colleagues than was the case with the more mathematically-oriented scientists in France.

The faith of the *Naturphilosophen* in the underlying unity of nature suggested that discoveries in one area of science will compliment discoveries in another.[7] Ørsted and others used the power of this assumption to confirm their understanding of nature and change our own. We can now see the significance Ørsted attached to electromagnetism: by relating electricity and magnetism, he thought this showed the unity of natural forces: electricity, magnetism, heat and light. When he communicated his discovery to the British Royal Society in 1821, he concluded by saying that it will «give a new explanation to the opinion which I expressed several years since, upon the production of light and heat by the con-

[1] WILLIAMS (1966).
[2] BRANDES (1984: 51). Citations to *Aladdin* will be from OEHLENSCHLÄGER (1896) and appear in the text.
[3] ØRSTED (1920b: I, 25, 77), CHRISTIANSEN (1903), STAUFFER (1957: 39).
[4] BANG (1986: 35–36).
[5] THOMSEN (1950), KISTRUP (1951), MICHELSEN (1963).
[6] ØRSTED (1850–52: VIII, 106–107).
[7] SNELDERS (1970: 202–206), GOWER (1973: 339–341), KNIGHT (1967b).

flict of electrical forces.»[8] Let us examine that «opinion» more closely, particularly his use of «conflictus» as a metaphor.

We first need to understand a term familiar to us, but in the way Ørsted's generation understood it: «Chemistry.»[9] Ørsted shared a widespread rejection of the competing atomic theory of matter: it was mechanical, Newtonian and seemed conceptually absurd. He believed investigations based upon a Kantian dynamics of positive and negative conflicting forces to be a more plausible path to follow: study the obvious polarities of positive and negative electricity; heat and light.[10] Since heat and light appear in chemical changes, and, as the new Voltaic battery (discs of copper and zinc separated by wet cardboard) produced a continuous stream of electricity by chemical effects, we can understand how, by «Chemistry,» Ørsted could mean a unified «Kraftlære»: a comprehensive study of all non-mechanical forces, later to be called «energy.» In Kuhnian terms, this was a complex «paradigm-shift,» leading to modern field-theory.

It may seem strange to us that a science which rejected atomic theory and distrusted mathematics could produce anything but nonsense. To be sure, it did produce a lot of that, as did Ørsted in his early work, but it also produced testable results, most notably Ørsted's discovery and, indirectly, the Law of Conservation of Energy in the 1840s.[11]

Whatever the scholarly controversies in Denmark about the relationship among Oehlenschläger, Steffens and Ørsted, we know from the letters between the two friends that Oehlenschläger had become alienated from Steffens by 1805, and he turned to Ørsted for advice. Ørsted was having his own problems with speculative physics, but he writes to Oehlenschläger not to become a complete renegade from the New School: accept it for what it is, but know it for what it is not.[12] We can see the effects of this advice in *Aladdin*.

In the Epilogue to *Aladdin*, «Phantasia» tells us that the Lamp embodies «Naturens hemmelige Urkraft: *Lyset* selv» (367). At this time, Steffens had no developed theory of light, but Ørsted did. Let us look more closely at Ørsted's «Chemistry» to see just what light was thought to be at the time.

An examination of Ørsted's «Theorie over Lyset» from 1815–16,[13] a short piece which sums up his views, will show how this dynamic Chemistry can help us read some bewildering imagery from *Aladdin*. Ørsted knows that a chemical battery produces electric «conflictus» through disrupting equilibrium in forces in polar opposition (he does not call it «current»). While attending Ørsted's lectures, Carsten Hauch noted that Ørsted differed from the *Naturphilosophen* in

[8] ØRSTED (1821: 337).
[9] HAYM (1906: 390–91), KNIGHT (1967b).
[10] BILLESKOV JANSEN (1971: 127–129).
[11] BANG (1986: 27–29).
[12] ØRSTED (1870: I, 225–226).
[13] Citations to «Theorie over Lyset» will be from ØRSTED (1920b: II, 433–35) and appear in the text.

just this way.[14] For them, affinities come together, then harmony ensues; but for Ørsted, extremities «kæmpe» in the chemical process to achieve equilibrium and harmony.

When this electric conflict passes through a wire, radiates first heat, then light glowing from red through blue-white. Ørsted's assumption of the unity of nature has led him to suspect magnetism must be involved somehow, but in 1816 he is four years away from proving it. The dynamic «conflict» – attraction and repulsion of positive and negative electrical forces – produces heat and light, he says, heat just being a slower form of light. Combustion, he believes, is a product of dynamic attraction – repulsion as well:

> Det Lys, der viser sig ved den sædvanlige Forbrænding, frembringes da ved Foreningen mellem den positive Kraft, der har Overvægt i ethvert brændbart Legeme, og den negative Kraft, der er overveiende i Luftens ildnærende Bestanddeel (434).

Aware of the many theories concerning the nature of the spark, Ørsted notes that «Kræfternes Virkemaade i Lyset sammenligner Forfatteren med den, som finder Sted i den electriske Gnist. . . . Foreningsøieblikket giver Lyset» (434). Since sparks come from heat and from electricity, why not assume, then, that a light beam is «en Række af umaaleligt smaa electriske Gnister, som man kunde kalde Lysets Grunddele» (435). The speed of unification of polarities determines what we see, from heat, into the recently detected ultraviolet light, then through the spectrum of visible light from red to blue-white incandescence.

Ørsted says his theory «fremstiller Forholdet mellem Varme og Lys, og at den endeligen sætter Lysudviklingen i den inderligste Forbindelse med den chemiske Virksomhed» (435). Ørsted continued to believe in this theory, asserting that light connects us to all creation, and he saw his great discovery as a confirmation of this.

A textual study of *Aladdin* would show that the images of heat, light, electricity and magnetism form a unified «Kraftlære» in the play which conforms to Ørsted's investigations of creation's polarities. Indeed, «Stemmen fra Lampen» says that Aladdin will unify the enigma of creation's great polarity: «det høie Lys med Mennesket» (110).

Details of imagery drawn from physics may be interesting if speculative, but they offer an example of how obsolete science can relate literary images. If we turn from Ørsted's investigations of nature to his interpretations of nature we gain a key to interpreting the play, for the theme of *Aladdin* runs through Ørsted's Chemistry as well. Ørsted believed his experimental investigations confirmed his interpretations of nature. He wrote on the implications of natural science throughout his life, but collected the essays as *Aanden i Naturen* in 1849–50, shortly before his death.[15] What follows is but a synopsis of Ørsted's views on nature, reason, and the imagination, distilled from his experiments, philosophy and polemics.

[14] Restrup (1933: 14).

[15] Ørsted (1850–52: I–II, English summary in Knight (1967a: 82–87).

A thought-experiment, a term Ørsted apparently coined, has validity if confirmed empirically, for «Naturlove er Naturtanke.»[16] In sound thought, then, mind follows nature, and vice versa: «Hvad Aanden eller tanken lover, holder naturen.»

The assertion that the laws of nature are the laws of mind brings us quickly into esthetics. While Oehlenschläger in 1804–05 was writing *Aladdin*, Ørsted found that drawing a bow across a resin-powdered plate produced not only sound, but symmetrical lines. In these «Forsøg over Klangfigurer» Ørsted finds that sound can be transformed into visual beauty: «Skønhed,» he says, «er en hemmelig meddelese fra Verdens inderste Sammenhæng. Indsigt er den høieste Nydelse af vor aandelige Tilværelse.»[17]

But man's reason is not that of God. If Ørsted broke with Schelling and Steffens scientifically over their contempt for experimentation, he felt a deeper rupture with the *Naturphilosophen* over the idea that thought can encompass God. Even while urging Oehlenschläger not to break with the «New School» too violently, Ørsted did comment that Steffens wanted to «indklemme Naturen i et System, og det i et meget snævert.»[18] With unusual bitterness, Ørsted attacked Grundtvig and his *Verdens Krønike* in 1812 for similar reasons: not only was Grundtvig wrong in his contempt for science, but no human should presume to speak for God, not even Grundtvig.[19] Oehlenschläger agreed in *Aladdin*.

As we know, in the Epilogue Phantasia tells us that the Lamp embodies «den hemmelige Urkraft, Lyset selv, som virker Alt, hvad der er Liv og Lykke.» Remember that in 1805, light, the ultimate force, is itself a unification of polar electrical opposites: while Aladdin does not hear this Epilogue, metaphorically he will unify the ultimate polarities: «det høie Lys med Mennesket.»

«Lampens Aand» asks him «Hvad er Lykke uden Aand?» (290). Let us now use «Lykke» as the human pole, and «Aand» as the divine pole. As «Naturens muntre Søn,» Aladdin's «Lykke» has led to an arrogant self-centeredness which he needs to abandon by recognizing «Aanden i Naturen.» When through the «Kamp» of these opposites he does so, he becomes Sultan, thereby unifying «Liv og Lykke.»

But he does not do this until after he makes a crucial mistake. He demands of «Lampens Aand» that his palace be completed with a Roc-Egg, described as a symbol of Allah and the ultimate force in creation. Wrathfully, «Lampens Aand» turns on Aladdin with a shriek, accusing him of «Kraftens Middelpunkt, din Skaber vil du hænge i en Traad» (345), much as Ørsted accused Steffens and Grundtvig of doing.

J. L. Heiberg felt that this was a mistake on Oehlenschläger's part, saying that this scene debases the supernatural from neutral catalysts into instruments for

[16] WITT-HANSEN (1976); ØRSTED (1850–52: I, 28).
[17] ØRSTED (1850–52: III, 129).
[18] ØRSTED (1870: I, 227).
[19] CHRISTENSEN (1966).

correcting moral behavior.[20] But the «Totalanskuelse» Oehlenschläger shared with Ørsted involved science as *Kraft*, rationality, beauty and an ultimately inaccessible divine Good in an integrated living system. For both of them, violation of this equilibrium constituted the destructive element in the human personality.[21]

Remember that the Lamp embodies light, nature's ultimate force, which for Ørsted unified all creation. As long as human reason follows nature's reason, thought is in harmony with nature. As «Lampens Aand» puts it, «Lampens Slaver er Slaver af Bestandighed» (346). Until he realizes this, Aladdin's arrogance prevents him from unifying the human – his *Lykke* – with the divine: the *Aand*. Noureddin never understands this: in the scene with the Købmand, Noureddin tries to comprehend the miracle of Aladdin's palace, but ignores the Købmand's injunction that «I seer det hænger sammen; det er nok»; and, of course, since Aladdin didn't build the palace, «I faaer saa stor Respekt / Da for Bygmesteren, at tydeligt / I føler Eders Uformuenhed, / Til at sætte Jer i hans Ideegang» (222).

So Aladdin chooses to leave his palace incomplete, recognizing as did Ørsted that our knowledge is forever building but never complete, and thus he deserves to become Sultan. The play ends. Unlike other questing romantic heroes, however, Aladdin is content with his limited knowledge. We then find out what Aladdin never does: that «Naturens hemmelige Urkraft» is light, which for Ørsted links the physical world to the divine.

We can now see the larger problems Oehlenschläger and Ørsted had with Steffens and the *Naturphilosophen*: we cannot think our way to God. We see also the reason for Ørsted's unusual virulence in his polemic against Grundtvig: no man can speak with God's voice. As Phantasia puts it, «Livets stræben kun / Er Digtekunstens Stof, den høie Roe / Kan Guds Cheruber Synge, ingen Digter» (368).

[20] HEIBERG (1861-62: III, 236).
[21] OEHLENSCHLÄGER (1980: 23-24).

TURIÐ SIGURÐARDÓTTIR JOENSEN, TÓRSHAVN

Romantiske træk i den ældste nyfærøske sangdigtning fra slutningen af det 19. århundrede

Fornyelsen i færøsk poesi i sidste fjerdedel af det 19. århundrede var både en del af og et udtryk for dannelsen af en national færøsk identitet. Frem til 1870-erne bestod færøsk digtning af de i Norden traditionelle mundtlige genrer med balla-